Record Nr. UNINA9910155445003321 Autore Mithulananthan Nadarajah Titolo Intelligent Network Integration of Distributed Renewable Generation // by Nadarajah Mithulananthan, Duong Quoc Hung, Kwang Y. Lee Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 **ISBN** 3-319-49271-3 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XV, 135 p. 52 illus.) Collana Green Energy and Technology, , 1865-3529 Disciplina 621.042 Soggetti Renewable energy resources Power electronics Energy systems Quality control Reliability Industrial safety Production management Renewable and Green Energy Power Electronics, Electrical Machines and Networks **Energy Systems** Quality Control, Reliability, Safety and Risk **Operations Management** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Introduction -- Distribution System Modelling -- Biomass DG Integration -- PV Integration -- PV and BES Integration -- PV and EV Integration -- Biomass Integration -- A Cost Benefit Analysis. Sommario/riassunto This book introduces several simple analytical approaches to aid the seamless integration of renewable distributed generation. It focuses on the idea of intelligent integration, which involves locating and developing suitable operational characteristics of renewable distributed generation. After reviewing the options available, the best location should be chosen, an appropriately sized operation should be installed

and the most suitable operational characteristics should be adopted.

Presenting these simple analytical approaches, their step-by-step implementation and a number of cases studies using test distribution systems, the book clearly demonstrates the technical, economic and environmental benefits of intelligent integration.